

REMARKS

Applicant graciously appreciates the Office's attention to the instant application. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is
5 believed to be fully responsive to all issues raised in the June 14, 2004 Office Action.

As explained above, claims 27 and 47 are currently amended, claims 35-37 are represented as new claims 53-55. Accordingly, claims 27-28, 30-32, 34-37, 41-46, 47-48 and 50-55 are pending.

10

Claim Rejections Under 35 USC §102(b)

In the Office Action dated June 14, 2004, the Office rejected claims 27, 28, 30-32, 34, 41-48 and 50-52 as being anticipated by US Pat. No. 4,360,057 to Koump ("Koump reference").

15 The Koump reference discloses and teaches a high temperature abrasive resistant heat exchanger that uses ceramic tubes, which are of relatively low strength and low ductility. Thus, the heat exchanger of the Koump reference simply aims to overcome the low strength, low ductility, lack of
20 12-16). Consequently, Applicant disagrees with the Office's assessment of the Koump reference for it does not disclose or enable the subject matter of the rejected claims, as required by §102.

For the sake of expediency, Applicant currently amends claims 27 and 47 to recite a metal tube. Support is found in the specification, for example:

That is, the more compressive load which will be applied to the core 110 during use, the stronger, and thus thicker the tube walls 174 and 184 will have to be to prevent buckling or other damage to the core 110. Thickness will also depend on the material used for the tubes 170 and 180. Any of a variety of materials can be used for the tubes 170 and 180, including steel and aluminum.

Specification at page 15, line 25 to page 16, line 2.

Applicant submits that “metal” is generic to steel and aluminum and includes alloys. Further, this portion of the specification indicates that the metal tubes are capable of being in contact with the core to transfer loads between the tube and the core, to provide support to the core and to increase the stiffness of the core. In contrast, the ceramic tubes of the Koump reference are the “weakest link” whereby the heat exchanger minimizes transfer of force to the brittle ceramic tubes.

Applicant submits that the Koump reference does not disclose expressly or inherently the subject matter of claims 27 and 47 and it does not enable the subject matter of claims 27 and 47. For at least the foregoing reasons, Applicant submits that claims 27 and 47 are patentable over the Koump reference and that the rejection is traversed. Further, claims that depend on claims 27 and 47 are patentable for at least the same reasons.

In the Office Action dated June 14, 2004, the Office rejected claims 27, 28, 30, 32, 34, 41-48 and 50 as being anticipated by US Pat. No. 5,052,475 to Grundy ("Grundy reference").

The Office states that the Grundy reference discloses "thermally permeable" tubes (OA 06/14/04 at page 4). To clarify, Applicant currently amends claims 27 and 47 to recite "fluid-permeable" tubes. Support is found in the specification, for example: "preferably, the tubes 170 and 180 are perforated, or otherwise permeable" (Specification at page 9, lines 1-2). The Grundy reference does not disclose or teach fluid-permeable tubes.

Applicant submits that the Grundy reference does not disclose expressly or inherently the subject matter of claims 27 and 47 and it does not enable the subject matter of claims 27 and 47. For at least the foregoing reasons, Applicant submits that claims 27 and 47 are patentable over the Grundy reference and that the rejection is traversed. Further, claims that depend on claims 27 and 47 are patentable for at least the same reasons.

Objected To Subject Matter: Claims 35-37 Represented as Claims 52-55

In the Office Action dated June 14, 2004, the Office indicated that claims 35-37 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant represents claims 35-37 as new claims 52-55.

Conclusion

Pending claims 27-28, 30-32, 34-37, 41-46, 47-48 and 50-55 are pending are believed to be in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application.

- 5 Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

10

Respectfully Submitted,

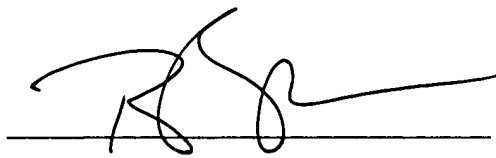
Lee & Hayes, PLLC

421 W. Riverside Avenue, Suite 500

Spokane, WA 99201

15

Dated: 6/15/04

A handwritten signature in black ink, appearing to read 'BPangre', is written over a horizontal line.

Name: Brian J. Pangre

Reg. No. 42,973

Phone No. (509) 324-9256 ext. 231

20